Trauma System Advisory Committee
3760 South Highland Drive Salt Lake City, UT 84106
5th Floor Board Room
Meeting Minutes
Monday, September 21, 2015

Committee Members:	Craig Cook, MD, Don VanBoerum, MD, Hilary Hewes MD, Holly Burke, RN, Janet Cortez, RN, Mark Dalley, Rod McKinlay, MD, Karen Glauser, RN, Steven Anderson, and Mark Thompson (on the phone), Craig Cook MD, Mark Dalley, Hilary Hewes MD, Karen Glauser, RN. Marc Sanderson and Mark Thompson
Excused:	Janet Cortez, RN, Jason Larson, MD, Matt Birch, Grant Barraclough
Guests:	Clay Mann, Kris Hansen, Zach Robinson (present for Janet Cortez RN), Shelly Arnold, Laura Nelson, Jennifer Ward, Dena Eckardt, Chris Drucker, Shawn Evertson, Rachel Trostrud, Mike Rady and Lisa Runyon
Staff:	Jolene Whitney, Shari Hunsaker, Peter Taillac MD, Bob Jex, Mathew Christensen, Gay Brogdon and Suzanne Barton
Presiding:	Craig Cook, MD

Agenda Topic	Discussion	Action
	Welcome	
Welcome	Craig Cook welcomed the TSAC Committee to the meeting and guests present. Introductions of committee members and guests around the room. Bob Jex welcomed the Committee to the meeting and acknowledged guests present.	
	Action Items:	
Conflict of Interest Forms	Jolene reminded the committee members that if they had not previously filled out the Conflict of Interest forms that she has forms and our Notary Public, Gay Brogdon is present to notarize their completed forms.	**Gay Brogdon was present to notarize the committee member's forms.**
Approval of Minutes	Mark Dalley commented that there was a typo on page 3 that should be corrected. CD scan should be CT scan. Typo noted and will be corrected by Suzanne before posting the approved minutes on the Public Site and the UDOH site. The June 5, 2015 Trauma System Advisory Committee meeting minutes were reviewed and approved by the committee members.	**Suzanne will make the correction to the typo on page 3.** **Mark Dalley motioned to approve the June 5, 2015 minutes. Hilary Hewes seconded the motion. All present members voted in favor of the motion. No one opposed; none abstained. Motion carried.**
	Informational Items:	
Status of R426-9 Changes – Bob Jex	Rule R426-9 has been posted for public comment. He appreciated the members of this committee that posted positive comments. We didn't receive any negative comments by the public. The rule went into effect August 21st so they are in rule now. Copies of the rules are printed quarterly so we will have a copy in time for the December meeting just in time to amend them again. Dr. Peter Taillac mentioned that in part of the rule change there is a significant change with something that he is heavily involved with the approved drug and equipment list for EMS agencies; ground agencies specifically. Currently that is in rule and requires a rule change to say we are going to carry this medicine instead of this	**Shari Hunsaker will email Bob a clean copy of the rule that can be sent out to the TSAC Committee members.**

	medicine. It was the opinion of the EMS Rules Task Force Committee that we take that out and publish it on the website and refer to it in the rule. For example if the TSAC feels that a piece of equipment or medication has benefit, we would simply add it and notify all the agencies opposed to having to go through the rules process. That is an important change. Bob commented that we are trying to do as much as we can by reference so we don't have to go through the rule change every time we want make an update. It's an onerous process and anytime you open the door for change you also you end up with criticism and more changes. Dr. Rod McKinlay commented on the rule changes and what was approved and where you could view the rule. Bob commented you can go on the website to look at the approved rule. Shari Hunsaker mentioned that the rule is not on the website yet, but she has a clean copy of the rule and she will forward it to Bob so it can be sent out with the minutes from the meeting today.	
Trauma Center Surveys – Bob Jex	Bob distributed a copy of the current designated Trauma Centers and included in that is the Level III designation for Jordan Valley. We appreciate their efforts and everything they are doing and they continue to be a model for the EMS agencies in the state. Bear River Valley Hospital's re-designation survey was on the 13th of August. We found two criteria deficiencies during that visit that they need to clear up and they have a year to do so. We are requiring that they need to submit copies of their performance improvements as well as the plan of correction and its required to us by the 30th of September. We will probably do random visits to the Trauma Performance Improvement areas because these were pretty significant deficiencies. Dixie Regional Medical Center has a consulting consultation visit with BCS on the 19th and 20th of October. Primary Children's Hospital is coming up November 2nd and 3rd. St. Mark's survey is scheduled for some time in November and we haven't set up a specific date yet. Ashley Valley Medical Center in Vernal is ready for designation to Level III. With Ashley Valley's designation it will bring us up to 25 Trauma Centers which is well over half of the hospitals in the state are designated. Jordan West Valley is working towards a designation visit Davis is scheduled for October 26th for a designation visit for Level III. Craig asked the question that from an administrative standpoint if it is becoming easier or more difficult to keep up with all the designations with more and more leveled centers. Bob commented that there are about four a year and it has become more complicated compared to ten years ago but is still manageable.	
Data Systems	The RFP closed on September 8th. There were two proposals and the	**Shari will let Suzanne**

Update – Shari Hunsaker	scoring team has met and done their initial scoring we are having vendor demos on October 2nd and we will do are final scoring after the demos by the scoring team and we should be able to initiate a contract the following week. This system will replace Polaris system as well as our licensing and certification system. One of the things we want to do with the new licensing and certification system is incorporate our hospitals in there and they will use the same functionality that we have for agencies but we will be able to track their designation as a stroke receiving facility, a STEMI/cardiac receiving facility, trauma or resource hospital and that will make the administrative process easier for Bob. Efforts will go underway by the end of this year or the first of next year to put together a RFP scoring team for a new medical registry solution that will include a trauma registry, a trauma rehab registry, stroke registry and other medical registries as determined beneficial. As we migrate from Polaris to the new solution, training will be offered to the hospital users so they can retrieve the patient care reports. We are doing a data conversion so that everything that is in Polaris will be converted into the new system and Josh Legler has already got the work done so when we do the data conversion it will be converted from Nemsis version 2.2 data set into Nemsis version 3.4 data set. There will be some missing elements that will be reported as unavailable. Everything will be version 3. Shari will do a series of trainings targeting a specific audience whether it is a hospital user, an agency using a third party software and they are uploading their data information into the State's data registry or they are going to be doing direct data entry. While she will be bringing direct data entry agencies on line, she will be working with the agencies that are using third party software to migrate them over to the new system. This will just be EMS being added to the new system. Decision was made that we would pull back the RFP and wait until we had to funds secured for the current fiscal year. She also secured an increase in the grant from the Highway Safety Office so she was able to finance the entire system with the NITZA grant so she didn't need any additional funds from the Bureau. They will be putting off the Trauma registry until the next fiscal year 2017. She will start laying the groundwork and put together the scoring team the first part of 2016 and there will be representatives from various stake holders on the team. To follow the State Procurement rule it will have to be a much smaller group than it was 2 to 3 years ago when we first started the discussion of the replacement of the trauma registry. It will include the functionality for multiple medical registries. Shari is the data steward for all the emergency data in the state and she receives a flat file from the office of health care statistics and she wants to change that to a relational data base so we have an emergency department registry that is queriable with more than just SAS. We need to discuss if we want a cardiac registry since we are already participating in CARES and do we need to have something separate from CARES. This will be discussed in the medical registry solution. It may be the same vendor for the medical registry as it is for EMS.	**know when it has been moved into production and the URL and website is live.**

	Geographic Ambulance Mapping - In response to the audit that the bureau had in 2014 from the Office of the Legislative Auditor General, Shari was tasked with working with the AGRC which is part of DTS with coming up with a mapping software solution so it would be easy to identify the agencies within a particular geographical level or particular service level or would be responsible for responding to a particular address. She has been working with Matt Peters on this. This will be moved into production this week and Jolene thought it would be of interest to TSAC. It will have its own URL and we will post it on the UDOH website. Shari performed a demonstration online of the maps. Shari is writing the information for the website and there will be tools to make it user friendly. If the EMS agencies see a problem with their boundaries, there is a report a problem button where they can submit the problem to us. Shari will let Suzanne know when it is ready to go live and she can send out an email to the committee	
Medical Direction Update – Free Standing ED's Protocol – Peter Taillac	Medical Director Update - The protocol committee has convened a couple of week ago and they are going to divide up the protocols into groups to review. Peter will be in charge of the trauma protocol. Anybody on this committee that would be interested in being a part of this process please let Peter know. We need a surgeon on the group. This will be a 6 month process. Free standing ED's - Peter just returned from an EMS Expo in Vegas and this was a big topic and he brought this subject up in one of his lectures specifically. We discussed putting together a sub-committee from this group, particularly prehospital expertise, to review the ACH field triage guidelines and use this a initial base with recommended guidelines for destination criteria guidelines. Jolene commented in the statue there are destination criteria. We must follow what is outlined in the statue. It specifically says that they must transfer patients to the closest facility or to the emergency receiving facility which is basically a clinic. The problem with that statute is with community hospitals. Peter and Bob would like to get volunteers from this group and also from the core group of expertise to form a set sub-committee and set up monthly meetings to talk about this topic. If you look at the Utah Trauma Field Triage guidelines the first two boxes are the most critically ill patients that belong to the highest level trauma center within the defined trauma system. For step three, the patient doesn't have any of the conditions listed in step one and step two when you have a falls, high risk auto crashes, auto vs. pedestrian/bicyclist or motorcycle crashes, some of those folks could be transported to a free standing ED and they would not need to be transported to the highest level trauma center. This is a good place to start with these guidelines to give us some criteria that are universally accepted by EMS agencies and trauma centers. They will come up with a document for destination guidelines for free standing ED's. Large EMS agencies that do not ever transfer to free standing at all. The challenge for us is these are urban issues	**Dr. Don VanBoerum volunteered to be on the Trauma Protocol Committee.** **Suzanne will set up the meeting with the volunteers for the sub-group.**

	Peter asked Shari what information is in the data base showing how many patients are transferred out and Shari said yes. Peter wants two to three volunteers from this committee. Holly, Hillary and Don V. volunteered. Don will represent the sub-group as the surgeon. Dena Eckardt from Roy volunteered and Matt Birch will be asked to volunteer as well as Cody Drieham, (Deputy Chief for Roy City Fire). Suzanne will set up the meeting.	
EMSC Update – Jolene Whitney **Pediatric Vital Signs Abstract – Dr. Hilary Hewes**	We are working on updating the protocols. We have also developed with our Intermountain Regional EMSC Coordinating Council a family centered care module which is under review which we will present to this committee when it is done. We have been doing lots of PEP and PALS classes and have been getting out a monthly newsletter. We will send out the newsletter to the TSAC Committee members. Suzanne will forward that to committee. Jolene has currently been working on Zero Fatalities Safety Summit Conference that will be held in Provo at their convention center on April 13th and 14th in 2016. We want hospital and EMS providers there. There will be a lot of good speakers there and Holly will talk about one of the speakers. Holly said that we have the radiology director, Keith Paulsen that will talk about his daughter's horrible accident that happened in West Jordan in front of the high school over a year ago. It was a multi-agency response. She was hit by a drunk driver that ran a red light and luckily she was wearing a seatbelt and was life flighted up to the U of U with a brain injury, spleen injury and her pelvis was shattered. Mia has made a full recovery and is now attending college and playing soccer again. They will both be there along with West Jordan Fire. We will also have the Tooele Dust storm incident that several agencies responded to and also the Spanish Fork incident with the little girl that was upside down in her car seat for several hours and was rescued and also we will have a program for EMS providers and hospitals with regards to critical incident stress management for agencies and personnel. Hilary will speak about the pediatric issues with car surfing and long boarding, "Road Warriors – Surfing the Turf and other Risky Business". We have had a chance to look at the pediatric vital signs and Hilary has done an abstract and we have done a couple of posters. It started as a process improvement model looking at data on how transported patients that had a full set of pediatric vitals taken prior to the prehospital setting and also talking about fluid resuscitation and how we can improve that. The numbers were awful in terms especially with the younger patients having things like their blood pressure measured. Less than 30% of kids under the age of 4 were having their blood pressure taken in a prehospital setting by EMS providers. About the same time, one of the papers published from their NICU group about morbidity and mortality that didn't have an appropriate response to hypertension with closed head injury as well as hypoxia and there was morbidity and mortality associated with it, especially with untreated hypertension. These guys recognize the need for this and they looked at the data first as pre-intervention and showed it to the EMS folks and then we took it to EMSC retreat and showed the EMSC Coordinators and they came up with a bunch of different interventions. Peter went around the state and did some	**Suzanne will email the EMSC monthly newsletter to the TSAC Committee members.**

	short presentations with EMS on how important it is to get pediatric vital signs and how to do it. Tia Dalrymple and Howard Kadish did some training on life health on how to get better vitals on a child. We looked on pre and post interventions for vital signs. There has been double digit improvement across the board. Great intervention and great teaching. We presented a poster at the Western Pediatric Conference. The word is getting out there and hopefully it will inspire other states on the importance of pediatric vitals. Shari said they are presenting it at the NASEMSO annual meeting. Shari did mention that they created reports for agencies to see their results.	
Pediatric Trauma Dashboard – Clay Mann	Jolene asked me to show you what the U of U hospital is doing with NEMSIS TAC in supporting prehospital reporting of trauma. We are doing some initial work for the State of Utah using the trauma registry using the same kind of reporting tool and would appreciate feedback on it. NEMSIS is the national EMS information system. We are collecting 25.8 million activations in 46 states and territories per year. We provide a number of dynamic dashboards. One of the dashboards is for pediatric trauma dashboard. We are using a tool called Tableau that allows the user to be quite dynamic at what they look at. Ages are represented by colors. There is another section that shows what type of injury. You can really drill down with this tool. You can break it down by what types of injuries for example alcohol and drug usage injuries with teenagers, falls and by the time of day the injury occurred that they are providing pain medication. It will bring up different types of injury mechanisms. This can be access on the NEMSIS website. It will also show percentages of what amount of pediatric patients received pain medication by age group. Jolene and Shari asked us to look at what we could do to help the individual hospitals when looking at the trauma system audit filters that were developed in 2006. There are 13 audit filters. These filters are where you could look deeper in to a case. They filters could be assessed through Excel spreadsheets where you could go through each of the filters and look at the data. Another way was doing an epidemiology report where folks could look and see by hospital what was happening in regards to the case. With Tableau the audit filters are all on there. On the NEMSIS site you can go and view your hospital and see the different levels; (level 1 - 5) and how they came to the hospital, age groups, and other comparisons with other hospitals within the state of Utah. You can only see your hospital data with your password you enter. You can see how hospitals perform over several years with the year slider filter they will be adding. These audit filters should provide a fairly detailed, yet anonymous way of being able to look at how other hospitals are doing as a group. Shari said the deadline for this project is October 1st. There will be a round of comments and revisions before it comes out. The plan is to update this information quarterly. The contract requires quarterly reports to the hospitals so whatever the most recent quarter close was based on your data submission you will be able to see your information. It will be coming out of the trauma repository as opposed to the trauma registry that closes the data set on an annual basis. Since the data is set on an annual basis, you will get your information more timely for the current year. If you are comparing previous years it will be on the closed data sets. The link will be on	

	UtahTrauma.org. This will not be a public site. They will have to use IBIS to view public available data. The Program Trauma manager will be the only one that has the URL and access to the data base to view the information.	
PCH Head Injury Transfers – Kris Hansen	These slides belong to Dr. Stephen Fenton who is the Medical Director for trauma at Primary Children's Hospital. We have been collaboratively working with some of our partners in our community to come up with a pediatric trauma network where everyone works together to improve the outcome for kids. Thanks to Dr. Mathew Christensen we now have some preliminary and now published data regarding how children move through the system that are injured within the State of Utah. We feel like this is an opportunity for improvement. Reaction to some of this data that is now available to us allows us think about how do we work together to accomplish the goals of best care for kids. With the agenda of kids who can be cared for in their own communities should be cared for in their own communities and figure out ways for specific pediatric specialty expertise for that community that is best needed like neuro-surgical backup, etc. to allow these kids to stay in their community as is feasible. On the flip side of that, when a child requires tertiary care and specialty pediatric care, that we figure out a system where there are no barriers to get the emergent care that child needs and also to allow the experts at a facility to be able to communicate directly with the providers that are providing the initial care as well as the transporting companies so they can provide direct online medical control as they travel across the state transporting these patients. Lisa will be the center of this project. All this information comes out of the Institute of Medicine study from 2006 and published in 2007 which talks about the deficits in emergency pediatric care across the country. They recognize that there are three opportunities for improvement in regionalizing pediatric care and coordinating pediatric care and accountability related to pediatric care. Those are also the things that we have decided to focus on as well so you will see that Dr. Fenton's slide set is divided into those three categories. This paper was authored by Dr. Fenton along with a group of folks from Primary's. The map is a representation showing where kids come from in the country for tertiary care and end up at Primary's. Most of the kids that wind up at Primary's are from the Wasatch Front. We would like to focus on that as well as the wider area of coverage. This paper which was authored by Dr. Christensen along with other authors is being reviewed for publication which talks about what happens to kids when they are under an over triage within our statewide trauma system. Basically it is data with a large group of patients over several years and several hospitals for patients under the age of fifteen. There are two categories of hospitals; under triage and over triage. Under triage transfer 85% or less of patients who come to that hospital with an injury severity score (ISS) of 16 or more and under the age of fifteen end up not being sent forward to a level one pediatric trauma center. Over triage hospitals are the flip side. More than 75% of patients with an ISS of less than 15 are being sent to a level one pediatric trauma center. The strongest predictor of patient transfer was the hospitals transfer practice not patient injury, severity	

	of injury or distance from the pediatric trauma center. It was based on the hospital's culture or transfer process. This is what defines how the patient is moved through the system. In the under triage hospitals there were twelve hospitals in that category with 3,500 patients that had more of a risk of death than their cohort. The data with the patients that died the first 90 minutes were excluded. Mathew commented that they were included and they looked at the time frame and if it was less than 30 minutes then they were put in a category that they couldn't survive a transfer. With over-triage patient transfers more than 60% of the patients were released from the pediatric trauma centers within the first 24 hours, which was clearly over-triaged. If there is a hurt kid that is out in a rural area and there is a provider that doesn't usually handle pediatric patients is distressed and the parents are upset they have an hurt child so what usually happens in that scenario in regards to the severity of the injury that provider will probably call for the patient to be transferred over to a pediatric trauma hospital. In an effort to think about these types of scenarios we often think about Utah. How can we set up a network of pediatric care with experts with pediatric capability across the state to address some of these issues. We took various regions of the state that are currently established by the trauma system here and identified in each of these regions a pediatric resource center (PRC) that would have relationships with the community affiliated hospitals. The identified PRC's would need to have all the appropriate pediatric capabilities within their center with the appropriate equipment to care for pediatric patients. Each of these hospitals would network with each other and the pediatric resource center. We are looking at regionalization, coordination and accountability. Regionalization would work by establishing an integrative pediatric trauma network in Utah by connecting regional pediatric trauma care with Primary's through a model of hub and spokes that would be the distribution. Primary Children's Hospital as the level one pediatric trauma center serves as the lead agency in these partnerships with the regional pediatric capable resource trauma centers. Each PRC then has to establish a network with the community affiliated hospitals in their region. The organization for the Intermountain West Pediatric Trauma Network (IPTN) would include an IPTN medical director which would most likely be Dr. Stephen Fenton, an IPTN program director, an IPTN clinical manager and PRC coordinators. Each of these centers will have a PRC coordinator. Two of the places we have started the initial discussion is with Utah Valley and Dixie Regional Medical Center to establish a PRC to get a good network in place and a good relationship going with Primary's. Coordination will be managed by having practice guidelines for	

	pediatric trauma care distributed throughout the network. Best practices would include transfer and coordination of care within a region and if requested by the PRC, needed collaboration with Primary's. For accountability we close the loop and find out how we are doing out there. We are suggesting that to be part of the network you need to participate in our interdisciplinary performance improvement patient safety organization. Within these regions pediatric trauma data will be collected and shared and analyzed. The local PRC coordinator will be the person that will get this data and communicate with the IPTN clinical expert who will then put all that data together and decide how we will talk about it. We will have a pre-review at the local level and then we will meet quarterly to discuss IPTN Performance Improvement and Patient Safety Conference. Once a year we would like to have a symposium to talk about how we could improve on this. The benefits of this are it will raise awareness. To get your help on what you think will help your region. It will reduce the number of preventable transfers, support trauma care within surrounding communities, provide best care pathways to optimize trauma care from the beginning and provide direct access to higher specialty care resulting in improved patient outcomes. We choose a couple of regions to start with and focus on isolated pediatric head trauma and test it out to see how it works and figure out resources and training. They choose two IHC centers because they already had telehealth connections in their ER's and both of those hospitals have inpatient beds for PEDS and pediatric special care. They decided to start with Utah Valley and then Dixie Regional. We felt like this was a good place to start. Discussed the problem with ITPN and having Intermountain in the name because this is not associated with Intermountain Healthcare. They talked about possibly naming it Great Basin, Wasatch or Children's Regional Trauma Center. The time line is we want 2 regions up and running. We need funding from Primary's for funding for a coordinator position. Protocols and best practices are already in process.	
2016 Schedule	March 14, June 13, September 12, December 14	
End of Meeting		**Meeting Adjourned**